LISTING OF THE CLAIMS

The following listing of the claims replaces all prior claim listings and versions:

1. (Currently Amended) A method for at least one of optical shape recording and evaluation of an optically smooth surface, an optically glossy surface or an optically rough surface ~~surfaces~~, ~~comprising~~ the method combining a photometric stereo method and a deflectometric method, the method comprising:

two-dimensionally encoding ~~with a scattering body so that~~ positions on a surface of ~~the~~ a scattering body ~~are two-dimensionally encoded by selecting the~~ with reference to a shape of the scattering body, such that one ~~normal~~ vector normal to each position on the surface of the scattering body is uniquely allocated to each position on the scattering body surface;[[,]]

uniquely allocating to each normal vector a luminance back-scattered by the scattering body ~~is uniquely allocated to each normal vector;~~; and

allocating the ~~back-scattering luminances are allocated~~ back-scattered luminance to ~~the~~ illumination strengths of recorded images.

2. (Currently Amended) The method as in claim 1, wherein the scattering body ~~(S)~~ has ~~the~~ a shape of a sphere, an ellipsoid, a rotationally symmetric body or parts thereof.

3. (Currently Amended) The method as in claim 1, further comprising providing ~~the~~ a result of the at least one of optical shape recording and the evaluation in ~~the~~ a form of a software file.

4. (Currently Amended) The method as in claim 1, ~~further comprising~~ wherein the at least one of optical shape recording and ~~evaluating using~~ evaluation is performed via an electronically operating camera.

5. (Previously Presented) The method as in claim 4, wherein the camera is a color camera.

6. (Previously Presented) The method as in claim 1, further comprising illuminating the surface with color-coded illumination.

7. (Previously Presented) The method as in claim 1, wherein the scattering body comprises an extended luminous scattering body surface for reducing coherent speckle noise.

8. (Currently Amended) The method as in claim 1, wherein the at least one of optical shape recording and ~~evaluating~~ evaluation comprises at least one of visualizing and electronically evaluating at least one of a local gradient and a local normal vector of the surface.

9. (Currently Amended) The method as in claim 7 [[8]], comprising at least one of visualizing and electronically evaluating at least one component of at least one of ~~the~~ a local gradient and ~~the~~ a local normal vector of the surface.

10. (Currently Amended) The method as in claim 8, wherein the at least one of the local gradient and the local normal vector is represented by being encoded as at least one of a grayscale and a color shade.

11. (Currently Amended) The method as in claim 9, wherein the at least one component of the at least one of the local gradient and the local normal vector of the surface is represented by being encoded as at least one of a grayscale and a color shade.

12. (Currently Amended) A device for optical shape measurement[[,]] for at least one of optical shape recording and evaluation of an optically smooth surface, an optically glossy surface or an optically rough surface ~~surfaces~~ by combining a photometric stereo method and a deflectometric method, the device comprising:

a scattering body comprising a scattering body surface;

at least one optical recorder for receiving illumination reflected off the surface; ~~surfaces, and~~

at least one light source ~~and a scattering body~~ positioned to scatter illumination to the scattering body surface;

a processor-readable medium incorporating two-dimensionally encoded positions on the scattering body surface with reference to a shape of the scattering body, such that one vector normal to each position on the scattering body surface is uniquely allocated to each position on the scattering body surface; and

a processor operable to uniquely allocate to each normal vector a luminance back-scattered by the scattering body and to allocate the back-scattered luminance to illumination strengths of recorded images.

13. (Previously Presented) The device as claimed in claim 12, wherein the scattering body has at least one of at least partially a spherical, ellipsoid and rotationally symmetric structure.

14. (Previously Presented) The device as in claim 12, further comprising using at least one of a microscope and a microscope objective for the optical imaging.

15. (Previously Presented) The device as in claim 12, wherein the light source comprises at least one light-emitting diode for the illumination.

16. (Previously Presented) The device as in claim 12, wherein the light source comprises at least one flash lamp for the illumination.

17. (Previously Presented) The device as claimed in claim 12, wherein the optical recorder comprises a camera.

18. (Currently Amended) The method as claimed in claim 1, ~~further~~ comprising three light sources positioned and configured for illuminating the surface.